



**Billing Code: 4163-18-P**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**Centers for Disease Control and Prevention**

**Prospective Grant of Exclusive License: Modulation of  
Poliovirus Replicative Fitness by Deoptimization of  
Synonymous Codons**

**AGENCY:** Centers for Disease Control and Prevention (CDC),  
Department of Health and Human Services (HHS).

**ACTION:** Notice.

**SUMMARY:** This is a notice in accordance with 35 U.S.C. 209(e) and 37 CFR 404.7(a)(1)(i) that the Technology Transfer Office, Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), is considering granting an exclusive license, in the field of use of vaccine targets for treatment or prevention of diseases in human health and in animal health, to practice the inventions listed in the patent applications

referred to below to Codagenix Inc., having a place of business in Stony Brook, New York. The patent rights in these inventions have been assigned to the government of the United States of America. The patent applications(s) to be licensed are:

US Provisional Application 60/617,545, filed 10/8/2004, entitled "Modulation of Poliovirus Replicative Fitness by Deoptimization of Synonymous Codons"; PCT Application PCT/US05/036241, filed 10/7/2005, entitled "Modulation of Poliovirus Replicative Fitness by Deoptimization of Synonymous Codons"; US National Stage Application 11/576,941, filed 11/19/2007, entitled "Modulation of Poliovirus Replicative Fitness by Deoptimization of Synonymous Codons"; and all related continuing and foreign patents/patent applications for the technology family. CDC Technology ID No. I-025-04.

Status: Pending

Priority Date(s): 10/8/2004

If granted, the licensee will pay CDC royalties in

accordance with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7.

Technology:

Infections by intracellular pathogens such as viruses, bacteria and parasites, are cleared in most cases after activation of specific T cellular immune responses that recognize foreign antigens and eliminate infected cells. Vaccines against those infectious organisms have been traditionally developed by administration of whole live attenuated or inactivated microorganisms. Although research has been performed using subunit vaccines, the levels of cellular immunity induced are usually low and not capable of eliciting complete protection against diseases caused by intracellular microbes. However, CDC inventors discovered that replacement of one or more natural (or native) codons in a pathogen with synonymous non-preferred codons can decrease the replicative fitness of the pathogen, thereby attenuating the pathogen. The non-preferred synonymous codon(s) encode the same amino acid as the native codon(s), but have nonetheless been found to reduce a pathogen's replicative fitness. This invention teaches compositions and methods that can be used to

develop attenuated vaccines having well-defined levels of replicative fitness and enhanced genetic stabilities.

**DATES:** Only written comments and/or applications for a license which are received by CDC on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] will be considered.

**ADDRESS:** Requests for a copy of these patent applications, inquiries, comments, and other materials relating to the planned license should be directed to Donald Prather, J.D., Ph.D., Technology Licensing and Marketing Specialist, Technology Transfer Office, Centers for Disease Control and Prevention (CDC), 4770 Buford Highway, Mailstop K-79, Atlanta, GA 30341, Telephone: (770) 488-8612; Facsimile: (770) 488-8615; Email:dmprather@cdc.gov.

**SUPPLEMENTAL INFORMATION:** Applications for a license filed in response to this notice will be treated as objections to

the giving of the planned license. Comments and objections submitted in response to this notice will not be made available for public inspection, and, to the extent permitted by law, will not be released under the Freedom of Information Act, 5 U.S.C. 552.

Dated: June 7, 2013.

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J. Ronald Campbell

Director, Division of Executive Secretariat  
Centers for Disease Control and Prevention

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